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New gene of branching enzyme of rice starch - useful for increasing starch yield of grain.
Patent Assignee: MITSUI GYOSAI SHOKUBUTSU BIO KENKYUSHO

Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Week	Type
JP 6261767	A	19940920	JP 93265171	A	19931022	199442	B

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Patent Details

Patent	Kind	Language	Page	Main IPC	Filing Notes
JP 6261767	A		13	C12N-015/54	

Abstract:
JP 6261767 A

A new cDNA of rice (Oryza sativa) starch branching enzyme gene which has the base sequence given as sequence No. 1 in the specification is claimed.

Also claimed are (1) a gene which encodes the mature protein of rice starch branching enzyme that has the 66th 825th amino acid residues of the polypeptide encoded by sequence No. 1, (2) a gene which encodes the signal peptide of rice starch branching enzyme which has the 1-65th amino acid residues of the polypeptide encoded by sequence no. 1, (3) promoter of rice starch branching enzyme gene comprising a base sequence given as sequence 4, in the specification (4) plant cell in which a DNA sequence is introduced. The DNA sequence is comprising (a) a DNA sequence which encodes all or part of the amino acid sequence encoded by sequence No. 1 and (b) a promoter expressible in a plant cell where the plant is Oryza sativa and grain is obtd. by cultivating the Oryza sativa and grain is obtd. by cultivating the Oryza sativa. (5) a method where the enzyme activity of the rice starch branching enzyme is changed by introducing the DNA into a plant cell and (6) expression of a heterologous gene by introducing the promoter of (3) fused to DNA encoding the heterologous gene into a plant cell.

USE - By introducing the DNA sequence in Oliva sativa, content of starch contg. component in grain can be increased. Also by using the promoter, rice starch branching enzyme gene or foreign gene can be expressed in plant seeds.

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